

Waters

M-22

Rotary Potentiometer

The M22 rotary potentiometer, available in servo and bushing mount, utilizes wear resistant MystR® conductive plastic film combined with precious metal wipers to produce a quiet operating, low noise, stable signal. Gold plated terminals are designed to eliminate the tarnish factor often encountered in assembly soldering operations. The high quality components are packaged in a cost effective housing designed with an anodized aluminum face plate or chrome plated brass bushing to handle assembly and operating loads.

The M22 series potentiometers are used in position sensing applications which demand high reliability at low cost.



Features

MystR plastic element

Aluminum face plate (M22S)

Integral terminations

Chrome plated brass bushing (M22B)

Benefits

Tested up to 25 million operations

Withstands assembly and operating loads

No internal leads to break under vibration

Withstands assembly and operating loads

Applications

- Robotics
- Medical rehabilitation equipment
- Animated characters
- Laboratory equipment handling
- Water treatment devices
- Packaging equipment
- Office machines



DATA INSTRUMENTS®

Technical Specifications

| Model | Unit | M22B | M22S |
|-------------------------|------------|------------|------------|
| MECHANICAL | | | |
| Case Diameter | in. (mm) | 7/8 (22) | |
| Total Mechanical Travel | degrees | 330 | continuous |
| Starting Torque (max) | oz. in. | 1.0 | 0.3 |
| Shaft Run Out (max) | in. | NA | .003 |
| Stop Strength | in. lb. | 5 | NA |
| Temperature Range | °C | -40 to +85 | |
| Life | operations | 25 million | |
| Bearings | | sleeve | |
| Total Weight | oz. (g) | 12 (340) | 9.8 (278) |
| Terminals | | gold | |

ELECTRICAL

| | | | |
|---------------------------------------|---------|----------|-----|
| Theoretical Electrical Travel | degrees | 320 | 340 |
| Independent Linearity* | ±% | 1 | |
| Total Resistance | | 2K | |
| Resistance Tolerance | ±% | 20 | |
| Output Smoothness | % | 0.1 | |
| Resistance Temperature Characteristic | ±% | 5 | |
| Resolution | | infinite | |
| Dielectric w/standing V | V rms | 750 | |
| Power Rating | Watts | 0.4 | |
| Wiper Current (max) | μA | <1 | |

OPTIONS**

| | | | |
|------------------------|-----|--------------------------|---------|
| Shaft | | Flat or Screwdriver slot | |
| Shaft Diameter | in. | 1/4 | NA |
| Anti-Rotational Pin | | Available without | NA |
| Resistance Values | | 1K, 5K, 10K | |
| Resistance Tolerance | ±% | 10 | |
| Independent Linearity* | ±% | .5 | .5, .25 |

ORDERING INFORMATION

Item numbers are for standard models only.

| Model | Item Number |
|-------|-------------|
| M22B | F46500007 |
| M22S | F46600010 |

* 5 to 95% of Theoretical Electrical Travel

** Minimum quantities may be required.

NOTE: Do not test using an Ohmmeter on a Rx1 scale or other current devices. Excessive wiper current may cause output errors and will cause damage. Zero side load is recommended to achieve maximum performance.

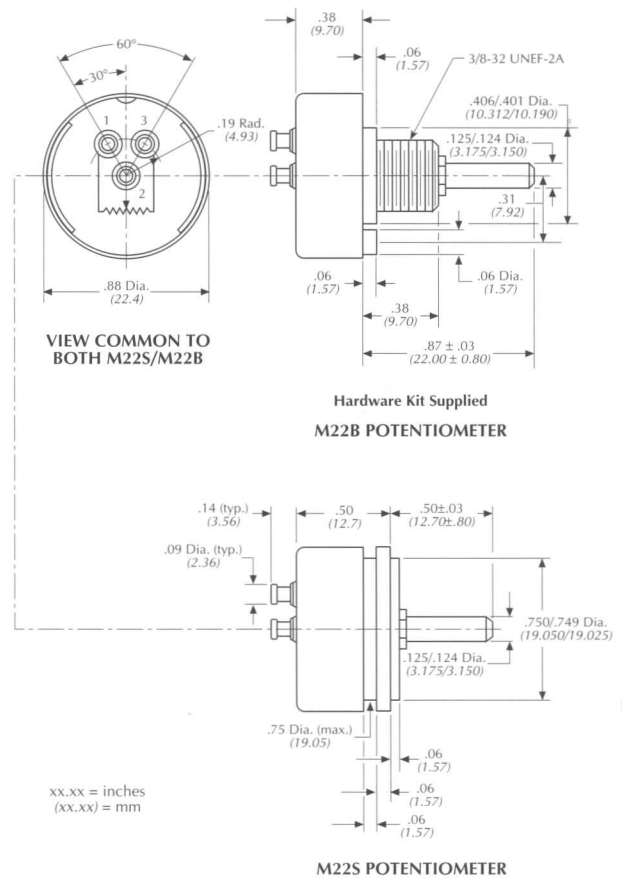
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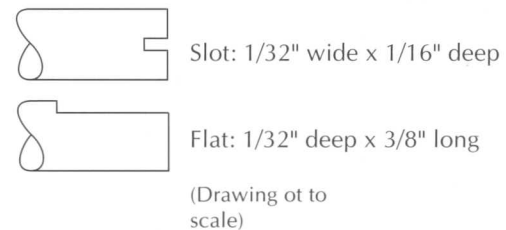
Specifications subject to change without notice.

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Dimensions



Optional Slot or Flat Dimensions



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